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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/581,915

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Claudio Lacagnina

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FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER

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EXAMINER

KNABLE, GEOFFREY L

ART UNIT

PAPER NUMBER

1747

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/581,915

Applicant(s)

LACAGNINA, CLAUDIO

Examiner

Geoffrey L. Knable

Art Unit

1747

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 42-82 is/are pending in the application.
- 4a) Of the above claim(s) 55 and 79-81 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 42-54-56-74-77-78 and 82 is/are rejected.
- 7) ☒ Claim(s) 75 and 76 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date See Continuation Sheet
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :6/7/2006; 4/2/2010; 6/8/2010; 11/11/2010.

1. Applicant's election with traverse of Species I, claims 42-54, 56-78 and 82 in the reply filed on 1/6/2011 is acknowledged. The traversal is on the ground(s) that the office action has not explained how Waldron et al. satisfies the claims and that whether or not claims 42 and 68 are shown by Waldron "does not dictate that alleged species I, II and III do not relate to a single general inventive concept under PCT Rule 13.1." It is also argued that the examiner has not shown that examining the species would constitute a serious burden per MPEP 803. This is not found persuasive because it was considered readily apparent how Waldron et al. (as cited and described in the International Search) satisfies claims 42 and 68 (and applicant has not shown otherwise) and it is these claims that define the common technical features of the various embodiments. In any event, the remainder of this office action will provide further detail as to why claims 42 and 68 do not define over the prior art and therefore cannot define a special technical feature that links the species so as to form a single general inventive concept. As to the arguments with respect to burden, MPEP 803 does not govern the requirements for demonstrating lack of unity. Further, and in any event, the different species relate to entirely different manners of effecting the desired translation that would require significantly different search and examination considerations and to the extent applicant is arguing that unity exists, applicant has not provided reasons in support thereof (i.e. as noted in the last office action, "[a]pplicant may submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case.")

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 55 and 79-81 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 1/6/2011.
3. Claims 54, 56, 57, 74 and 77 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 54, lines 1-2 define that the thrust component is exerted by "translating a pusher element onto the forming support". However, from a complete reading of the original disclosure, and especially the fig. 3 embodiment (to which this claim is read to correspond), it would appear that this reference to the axial thrust being exerted by the pusher element being "translated... onto the forming support" is inaccurate and confusing. In other words, this would require an axial movement of the pusher element whereas it does not appear that the pusher element (in the fig. 3 embodiment) moves in this manner. Clarification is required.

In claim 56, line 2, no antecedent has been established for "said thrust component".

In claims 74, line 3, no antecedent has been established for "said centring stretch".

In claim 77, line 3, the reference to the force directed "to" the forming support is ambiguous in this context. It would seem clearer if changed to for example "toward".

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 42, 45-47, 52, 53, 54, 56, 58-62, 68, 70 and 71 are rejected under 35 U.S.C. 102(b) as being anticipated by Waldron et al. (US 3,157,545).

Waldron et al. discloses a method for producing a semifinished product of reinforcing elements in elastomer comprising preparing a continuous elongated element (17) including reinforcing elements and elastomer, winding the elongated element on a forming support (2/3) with coils in contact with one another, translating the coils to a cutter (8/9) and cutting the coils to form a continuous semifinished product with elongated elements extending between edges thereof. This therefore anticipates the requirements of process claim 42 as well as the corresponding apparatus claim 68.

As to claim 45, the elongated element "comprises" a single reinforcing element (this not excluding additional elements). As to claim 46, the element (17) comprises plural parallel reinforcing elements (e.g. col. 4, lines 55-60). As to claim 47, the elongated element (17) is guided to a cylindrical deposition surface (e.g. of "2")

presented by the forming support. As to claim 52, the translation is continuous and thus repeated after forming each coil. As to claim 53, the coils move axially and therefore have a force exerted in this direction. As to claim 54, as already noted, it is difficult to assess the reference to translating the pusher element. In any event, at least elements 5/6 would seemingly be translated during machine assembly. As to claims 56-57, there would be at least some frictional resistance to movement of the coils, which would be reduced as the coils leave the forming support towards the cutter. As to claim 58, note pressure rollers "5" and "6" directed against the support. As to claims 59-62, cutting occurs during/after translation as the coils translate to auxiliary support "7". As to claim 70, a creel (and thus reel) is suggested (col. 4, lines 55-58). As to claim 71, element (4) acts as a guide element through which the elongated element slides and the guide path includes an end stretch directed to the forming support.

7. Claims 43, 44, 69 and 82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Waldron et al. (US 3,157,545) as applied above, and further in view of Takagi (US 2002/0153083).

As to claims 43 and 69, although Waldron et al. describes forming the strip (17) using a calender, in this art, it is well known to be suitable and effective to form a strip to be wound to form a tire ply using an extruder - Takagi (note extruder 40 in fig. 2 used to form the reinforced strip) is exemplary. To alternatively use an extruder to form the strip (17) would therefore have been obvious and lead to only the expected and predictable results. As to claim 44, directly supplying the strip from its formation would have been obvious in view of the teachings of Waldron et al. (which suggests direct connection

albeit with a calender) as well as Takagi (e.g. fig. 2). As to claim 82, as already noted, Waldron shows a device satisfying claim 68. Insofar as Waldron is directed to forming tire plies (e.g. col. 1, lines 14-17), use of this in combination with other assembling/curing devices for forming a tire (Takagi is exemplary of assembling devices being used in forming a tire) would have been obvious.

8. Claims 65-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 02/000421 to Mancini taken in view of Okada (US 6,039,826).

WO '421 discloses a method of producing tires in which a carcass ply with beads is shaped for joining with a belt and tread (e.g. page 21, lines 17-19; page 26, lines 2-6), final molding and curing being implicit. Further, the belt is formed by joining plural strips to form a continuous band and then cutting the resultant band to a predetermined length to form a belt ply - e.g. figs. 1 and 12. As this continuous band includes plural adjoined strips, it satisfies the claimed requirement for a "product obtained from a process as claimed in claim 42" as the cut continuous strip product from the claim 42 process would be the same as a continuous strip formed from individually joining strips as in WO '421, it being stressed that claim 65 does *not* require practicing of the claim 42 method. WO '421 does not however detail the formation of the carcass and thus does not explicitly describe forming it using a carcass ply strip having ends. It however is typical and obvious in this art to form a carcass by winding a strip on a drum, the strip typically and obviously having opposite ends that will be joined - Okada is exemplary (note the reference to the carcass being "wound" at col. 4, lines 48-50). A method as required by claim 65 would therefore have been obvious. As to claims 66 and 67, to wind the tread

and sidewall in coils using a narrow ribbon is well known and obvious alternative to full width strip winding for various advantages including avoiding the need for splicing of the component - Okada is exemplary (e.g. col. 1, lines 10-39).

9. Claims 68, 70 (for Solbeck rejection only), 71, 72, 73 and (for Solbeck rejection only) 74 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Solbeck (US 3,663,331) or Andreevskaya et al. (US 3,467,507).

Solbeck and Andreevskaya et al. each disclose an apparatus for forming a semfinished product including a device for preparing a coated continuous elongated element (note coating provided by 3/4 in Andreevskaya et al. and coating mentioned at col. 2, lines 46-51 of Solbeck - in either case, the coating device would be capable of applying an elastomer based coating), a device for winding the elongated element in coils around a forming support (11+ in Solbeck; 12-17 in Andreevskaya et al.), the coils being translated to a cutting device to form a continuous semfinished product. As to the coils being in contact with each other, it is submitted that the reference devices would have been capable of such formation of the coils, based upon a desired relative translation speed to rotation speed. Further, even if not implicit in the disclosures, it would have been obvious to provide such a capability so as to enable formation of non-woven fabrics with the fibers/threads that contact one another, non-woven fabrics where the fibers/thread contact one another being taken as known per se. Note also col. 4, lines 7-11 of Solbeck which suggests that the fabric produced may be equivalent to a very closely woven textile, this further being taken to suggest a capability to form coils

that would contact one another. An apparatus as required by claim 68 is therefore anticipated or obvious from the applied references. As to claim 70, note reels 14/17 in Solbeck. As to claims 71-73, the thread/fibers in each reference are rotated/guided in a path coaxially and then deflected away from the axis before being finally directed toward the forming support. As to claim 74, note continuous elongated elements 9 and 10 of Solbeck.

10. Claims 68, 70, 71 and 78 are rejected under 35 U.S.C. 102(b) as anticipated by GB 815,413 to Pedersen.

GB '413 discloses an apparatus for forming a semifinished product including a device for preparing an adhesively coated continuous elongated element (note coating provided by "15" in fig. 3 - the coating device would be capable of applying an elastomer based adhesive coating), a device for winding the elongated element in contacting coils around a forming support (1), the coils being translated to a cutting device to form a continuous semifinished product (page 1, lines 42-50). An apparatus as required by claim 68 is therefore anticipated. As to claim 70, note reels at page 2, lines 16-17. As to claim 71, the elongated element is guided toward the forming surface. As to claim 78, the forming surface has a tapered end (8 in fig. 1).

11. Claims 48-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Waldron et al. (US 3,157,545) as applied to claim 42 above, and further in view of Solbeck (US 3,663,331).

To alternatively wind the elongated element around the forming support rather than rotating the forming support/tubular element, would have been obvious in view of

the teachings of Solbeck which is also directed to continuous formation of a reinforced strip in a winding process and suggests winding the reinforcement around the forming surface with the reinforcement guided coaxially and then away from the axis and then toward the forming surface. Winding a pair of reinforcements along opposite coaxial paths is also suggested.

12. Claims 63-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Waldron et al. (US 3,157,545) as applied to claim 42 above, and further in view of Colson et al. (US 2004/0074591).

Continuously collecting a sheet formed by slitting a sheet would have been obvious in view of Colson et al. for example which suggests such - e.g. fig. 7.

13. Claims 75 and 76 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Likewise, claim 77 would be allowable if amended to avoid the 112 rejection.

Although it is known to include a pusher element (e.g. "5" in GB 815,413; "41" in Henderson et al. (US 6,537,405)) to translate coils axially, these references would not teach or render obvious a device as defined in claim 68 where additionally the translating device comprises a pusher element movable around the deposition surface of the forming support in an axially offset plane to transmit an axial thrust component to the continuous elongated element laid on the forming support as claimed.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey L. Knable whose telephone number is 571-272-1220. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Geoffrey L. Knable/
Primary Examiner, Art Unit 1747

G. Knable
January 31, 2011